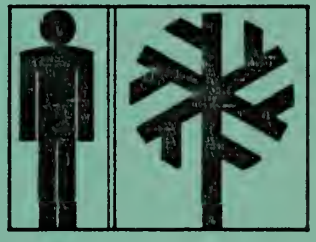
CHIS

natural and cultural resource management program

an addendum to the general management plan

revised May 1982

CHANNEL ISLANDS



NATIONAL PARK / CALIFORNIA

APPENDIX TO

NATURAL AND CULTURAL RESOURCES MANAGEMENT

PLAN AND PROGRAM: SEPTEMBER 1980

CHANNEL ISLANDS NATIONAL PARK
CALIFORNIA

March 1982
National Park Service
Department of the Interior

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ABSTRACT

This 1982 revision of the combined Natural/Cultural Resource Management Plan (N/CRMP) for Channel Islands National Park deals exclusively with its programmatic aspects, incorporating project statements and revising program worksheets. The narrative portion of the plan, approved in September 1980, is still valid for those areas over which the National Park Service has direct management responsibility, i.e., Anacapa, San Miguel, and Santa Barbara Islands. A revised resource management plan for the entire park, including the marine resource administered by the State of California and the now privately owned islands of Santa Cruz and Santa Rosa, is mandated to be prepared by October 1, 1983.

The greatest change in the present revision is the development of a project calling for the monitoring of the park's natural resources. This project is a requirement of Public Law 96-199, which established the park, and includes several monitoring actions which have been individual projects in the past. With this revision, they are being removed as individual projects and are identified as components of the all-inclusive monitoring project RM-23. Once monitoring programs are established and operational for the individual components, however, each will be dropped from RM-23 and established as an individual resource management project under the responsibility of the park to continue.

Appropriate to the new emphasis on governmental fiscal responsibility and personnel, funding for the various aspects of RM-23 will come from several sources, including the California Department of Fish and Game, the National Marine Fisheries Service, and the National Marine Sanctuary Office as well as the National Park Service.

Scheduling of components of RM-23 will depend on availability of funds. Scheduling of other projects not required by Congressional deadline will additionally depend upon overall priorities within the park.

It was determined through public and National Park Service review of the Channel Islands Cultural/Natural Resource Management Plan and Environmental Assessment that proposed actions lacked potential to cause significant impacts to the human or natural environment. New projects proposed herein were either discussed in the previous C/NRMP or are included in the proposed National Park Service list of categorical exclusions (Federal Register, May 28, 1980). Therefore, no further NEPA documentation is required.

All other applicable laws and policies (Endangered Species Act, National Historic Preservation Act, etc.) will be followed in carrying out these projects.

William H. Ehorn
Superintendent, Channel Islands National Park

4-22-82
Date

Howard L. Chapman
Regional Director, Western Region

5-17-82
Date

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NATURAL RESOURCES MANAGEMENT PLAN

Overview and Needs

Revision - March 1982

Thorough discussion of park natural resources and identified problems concerning their management are found within the N/CRMP approved September 1980. Additional project needs were mandated by Public Law 96-199, which directed the National Park Service to prepare a natural resources study report including both an inventory of all terrestrial and marine species, and recommendation as to what actions would protect the park's natural resources.

Projects concerning natural resources in the near future will be heavily weighted toward two areas: 1) Monitoring of the park's resources; and 2) Deciding how much active manipulation is necessary to allow island ecosystems to return to a more "natural" state (this latter will be concerned primarily with eradication of exotic species, encouraging the reestablishment of native communities).

In response to the mandates of Public Law 96-199, a package project to monitor the park's resources has been developed. Enclosed is Project Statement RM-23, reflecting this program. Its components include several actions previously identified as separate projects, including N-3 (Visitor Impact of Intertidal Resources), N-4 (Impacts of Marine Resources Harvest), N-11 (Determine Status of Globose Dune Beetle), N-14 (Determine Status of Amphibians and Reptiles), N-18 (Determine Status of Bats), RM-9 (Monitor Special Status Plant Species), RM-10 (Monitor Plant Transects), RM-11 (Pinniped Census/Monitoring), RM-12 (Monitor Special Status Snail Species), RM-16 (Monitor Seabird Populations), RM-17 (Monitor Brown Pelican Status), and RM-22 (Monitor Status of Island Fox). However, since RM-23 as a project deals primarily with establishing monitoring programs, it is most likely that individual components of the project will be separated again into individual projects following their establishment, for continuation. But for the present, the funding requested for this project includes initial implementation of project components as they are designed. The hoped-for timetable of these projects follows:

Fiscal Year 1982 - Initiate N-5 (Anacapa Island Black Rat Eradication), RM-21 (San Miguel Island Caliche Monitoring), N-6 (Initiate Exotic Plant Eradication Study). Continue N-13 (Island Night Lizard Study) and N-17 (Santa Barbara Island European Rabbit Eradication). For RM-23 (Monitor Park Natural Resources), these components will be addressed:

1. Design Pinniped Monitoring System
2. Design Sea Bird Monitoring System
3. Design Resource Data Management System
4. Design Boating Visitor Use Monitoring System
5. Design Marine Resources Monitoring System
6. Design Island Bird Monitoring System

Fiscal Year 1983 - Continue N-5 (Anacapa Island Black Rat Eradication). RM-21 (San Miguel Island Caliche Monitoring), N-6 (Exotic Plant Eradication Study). For RM-23 Monitor Park Natural Resources), these components will be addressed:

1. Continue Design of Marine Resource Monitoring System
2. Implement Pinniped Monitoring System
3. Implement Sea Bird Monitoring System
4. Implement Boating Visitor Monitoring System
5. Implement Resource Data Management System

Fiscal Years 1984-1986 - At this time we can anticipate only that N-21 and RM-21 will need to be contiued. More realistic projections will be possible after the development of the first natural resource report to Congress, due October 1, 1982.

NATURAL RESOURCES PROJECT PROGRAMMING SHEET

Channel Islands National Park, California

Revision March 1982

Area Priority Number	Reference Number	Increase or Package Number	Project Title	Year 1 (1982) NPS MY	Year 1 (1982) COSTS/$1000 BASE	Year 1 (1982) COSTS/$1000 NEW	Year 2 (1983) NPS MY	Year 2 (1983) COSTS/$1000 BASE	Year 2 (1983) COSTS/$1000 NEW	Year 3 (1984) NPS MY	Year 3 (1984) COSTS/$1000 BASE	Year 3 (1984) COSTS/$1000 NEW	Year 4 (1985) NPS MY	Year 4 (1985) COSTS/$1000 BASE	Year 4 (1985) COSTS/$1000 NEW	Year 5 (1986) NPS MY	Year 5 (1986) COSTS/$1000 BASE	Year 5 (1986) COSTS/$1000 NEW
Current Underway	N-13		Island Night Lizard Study	.5			.5											
Current Underway	RM-17		Santa Barbara Island/European Rabbit Eradication	.2	5													
1	RM-23		Monitor Park Natural Resources	6.4		217.3	6.4		217.3	6.4		217.3	6.4		217.3	6.4		217.3
2	RM-21		San Miguel Island Caliche Monitoring	.1		17.5			1			1			1			1
3	N-5		Anacapa Island Black Rat Eradication Program	.1		30	.1		30	.1		25.5	.1		24.5			
4	N-6		Initiate Exotic Plant Eradication Study	.1		21.5	.1		21.5	.1		21.5						
5	RM-19		Monitor Wind and Gully Erosion				.1		3	.1		3						
6	RM-13		Study Human/Pinniped - Seabird Interaction				.1	3.8	16.2									
7	N-15		Feasibility of Bald Eagle/Peregrine Falcon Reintroduction					Project Statement Not Yet Written										
8	N-1		Study Life Histories of Pinnipeds					Project Statement Not Yet Written										
9	N-20		Study Life Histories of Seabirds					Project Statement Not Yet Written										
0	N-10		Special Status Snails					Project Statement Not Yet Written										
1	N-16		Determine Status of European Starlings					Project Statement Not Yet Written										
2	N-12		Assess Damage by Scale to Prickly Pear Cactus					Project Statement Not Yet Written										
3	N-9		Identify Past Distribution of Special Status Snail Species					Project Statement Not Yet Written										
	N-19		Baseline Survey of Sea Otter Prey Species					Project Statement Not Yet Written										
	W-3		Park Water Resources Management Plan							.1	2							

1.1 Channel Islands National Park - RM-23- Long-term monitoring of park resources in compliance with Public Law 96-199.

1.2 Statement of Issue or Problem

Public Law 96-199 requires that the National Park Service monitor the abundance, distribution, reproductive activity, recruitment, age and sex compositions, phenology, and growth and mortality rates of all marine and terrestrial plants and animals in Channel Islands National Park. Many species in the park are also protected by the Marine Mammal Act of 1972, The Endangered Species Act of 1973, or state statutes. Many other species exist only in the park, and increasing harvests inflict unknown levels of impact on marine resources. Little historical information regarding the population dynamics of these species is available, and even less contemporary information is being collected.

Continuous long-term data on population dynamics is required to determine the impacts of fishery harvests, visitor use, and adjacent coastal development.

For the purposes of designing population monitoring systems, park resources were divided into several categories:

1. Pinnipeds
2. Sea Birds
3. Marine Animals
4. Marine Plants
5. Island Birds
6. Island Plants
7. Island Vertebrates
8. Tide Pools
9. Fisheries
10. Boating Visitors
11. Climate
12. Water Quality

Monitoring systems were designed and field tested for all but island plants and vertebrates, climate and water quality in Fiscal Year 1981, 1982 and 1983.

1.3 Alternative Actions and Their Probable Impacts

1. No Action - This would be contrary to the precise legislation direction given to the National Park Service to inventory the park biota and to report to Congress concerning this action and recommendations for management of these resources. In addition, without the baseline information to be generated by this project, the resources of the expanded park would have to be managed without adequate knowledge of their historic and present conditions, to the likely detriment of these resources.

2. Proceed with a Smaller Number of Components - Public Law 96-199 does not give the option of addressing an incomplete list of resources; to do so would not satisfy the requirements of the reports to Congress. In addition, it is the professional opinion of the park staff, including the research scientist assigned to the park, that this baseline information is necessary for adequate resource management, and that it is most logically separated into the components listed above.

1.4 Recommended Course of Action

The project should be begun as soon as fiscally possible, in its entirety. While funding sources will be sought from other agencies in some cases, it is necessary for the National Park Service to assume responsibility for initiation and continuation of the project with all its components, in order to ensure complete and timely reports to Congress.

CULTURAL AND NATURAL RESOURCES PROJECT STATEMENT

1. PARK AND REGION: Channel Islands National Park, Western Region

2. PROJECT NAME AND NUMBER: Black Rat (Rattus rattus) Eradication Program on Anacapa Island (CHIS N-5).

3. STATEMENT OF PROBLEM: The black rat, an Old World species, has inhabitated Anacapa Island for several years. It is potentially undesirable for several reasons, including its possible role as: a disease carrier; a destroyer of property; a serious competitor with the native deer mouse; a predator on various species of birds and their eggs, on intertidal organisms, and on native plants; and an unsettling presence to monument personnel and visitors alike. Little concrete information on the actual impact of the rat on the island ecosystem has been gathered, but policy and good sense dictate that an attempt should be made to eradicate or at least control this species on Anacapa Island.

4. WHAT HAS BEEN DONE: Basic studies were made in the early 1970s concerning the Anacapa black rat, primarily from the point of view of eradication, by Rod Hiemstra from the County of Ventura, but were not carried through to implementation. The 1979 Natural Resources Study by the Santa Barbara Museum of Natural History addressed the black rat and resulted in the design of a proposed eradication program for this animal on Anacapa Island. Throughout the years, a small number of rats has been eliminated by trapping, particularly around the buildings.

5. DESCRIPTION OF WORK TO BE UNDERTAKEN: Initially, the plan designed in the Museum study referred to above will be accepted, but before its implementation on the island, both field and laboratory studies will be undertaken concerning the impacts of the eradication program on the other island resources, particularly the secondary effects of the anti-coagulant poison "Pival" on predatory birds. As a result of this study, changes in design of the actual eradication project may be made. The project will be conducted first only on East Anacapa and results, as well as impact, will be continually monitored. With refinements made at that time, the program will then be undertaken on Middle and West Anacapa Islands. Should it prove impossible to totally eliminate the rat from Anacapa, annual control measures will be designed, and funds for their yearly implementation will be sought.

6. LENGTH OF TIME NEEDED: Four years.

7. WHAT WILL HAPPEN IF NOT UNDERTAKEN: The black rat will remain a common and important member of the Anacapa ecosystem, a condition unacceptable under NPS policy. The rat will continue to play an unknown but possibly detrimental role with many other biota of the island. In addition, the rat will remain destructive to human facilities and supplies on the island, as well as a potential vector of dangerous diseases.

8. WHAT ARE THE ALTERNATIVES: a. No action. b. Attempt to proceed with the actual eradication program without addressing the possible impacts. It is unlikely that, without the initial studies, enough information is present to satisfy NEPA documentation. c. Separate the impact studies from the actual eradication program in order to fund these two phases of the rat projects from separate sources, and proceed at the present time only with the impact studies.

9. PERSONNEL: Scientific personnel (NPS or contract) for the impact study. Contract pest eradication expertise, aided by NPS personnel, required for the actual eradication program, along with continuing scientific consultatation, to monitor.

10. ADMINISTRATION AND LOGISTICS:

	Year in Program Sequence				
	1st	2nd	3rd	4th	5th
Personal Services	20,000	20,000	17,000	17,000	
Other than Personal Services	10,000	10,000	7,500	7,500	
GRAND TOTAL	30,000	30,000	25,5000	24,500	
Funds Available in Park Base	0	0	0	0	
Funds Requested from Regional Office	30,000	30,000	24,500	24,500	

On Form		Date Submitted
10-237	[X]	March 1982
10-238	[ ]	
10-250	[ ]	
10-451	[ ]	

11. REFERENCES AND CONTACTS:

Collins, Paul W. 1979. Vertebrate zoology: the biology of introduced black rats on Anacapa and San Miguel Islands. Pages 14.1-14.49 in D. W. Power, ed. Natural Resources Study of the Channel Islands National Monument, California, National Park Service, Denver Service Center Contract No. CX-2000-8-0040.

Hiemstra, Rod. 1979. A program for control of the black rat on Anacapa Island. Pages 16.1-16.28 in D. W. Power, ed. Natural Resources Study of the Channel Islands National Monument, California, National Park Service Center Contract No. CX-2000-8-0040.

12. DATE OF PROJECT STATEMENT SUBMISSION: March 1982

CULTURAL AND NATURAL RESOURCES PROJECT STATEMENT

1. PARK AND REGION: Channel Islands National Park, Western Region

2. PROJECT NAME AND NUMBER: Monitoring of the San Miguel Island Caliche Concentration (CHIS RM-21)

3. STATEMENT OF PROBLEM: Large areas of calcified rhizoconcretions, or caliches, occur on San Miguel Island. These geological features, in many cases having formed around vegetation underground and now through erosion exposed at the surface, are quite fragile. Potential threats include an ever-increasing amount of visitation, and, more seriously, the possibly very strong sonic booms from the U. S. Air Force Space Shuttle program scheduled to overfly San Miguel on its launches and returns beginning in 1983. Before these caliche "forests" are damaged, their extent should be documented and a monitoring system established so that any change in the status of this resource can be detailed.

4. WHAT HAS BEEN DONE: The San Miguel Island caliches have been examined scientifically in years past, primarily by Dr. Donald Johnson of the University of Illinois. Dr. Johnson also addressed the recent status of the caliches, as well as having mapped the major concentrations of the "forests" as part of the Santa Barbara Museum of Natural History's 1979 Natural Resources Study for the NPS. Dr. Johnson is currently studying the potential impacts of the Space Shuttle sonic booms on the caliche "forests" under a contract with the U. S. Air Force.

5. DESCRIPTION OF WORK TO BE UNDERTAKEN: A thorough survey of the caliche concentrations should be undertaken, the most extensive areas outlined and the locations of the largest or in other respects most interesting individuals plotted; photographic stations should be established, as well as other means of monitoring, covering not only these areas, but also a wide variety of topographic conditions, as well as some areas of caliche most likely to be disturbed by direct human activity. Monitoring of these areas should occur on an annual basis, as well as directly before and after scheduled Space Shuttle launches.

6. LENGTH OF TIME NEEDED: Continuing

7. WHAT WILL HAPPEN IF NOT UNDERTAKEN: Management will not have baseline information regarding the present status of the caliche concentrations on San Miguel Island necessary to evaluate the potential future destruction of this resource; any future discussions with such agencies as the U. S. Air Force regarding such an issue would have to be based on hearsay and speculation.

8. WHAT ARE THE ALTERNATIVES: No action.

9. PERSONNEL: Scientific contract personnel to establish the monitoring program; NPS personnel to carry out the actual monitoring.

10. ADMINISTRATION AND LOGISTICS:

Funding	Year in Program Sequence 1st	2nd	3rd	4th	5th
Personal Services	10,000				
Other than Personal Services	7,500	1,000	1,000	1,000	1,000
GRAND TOTAL	17,500	1,000	1,000	1,000	1,000
Funds Available in Park Base	0	0	0	0	0
Funds Requested from Regional Office	17,500	1,000	1,000	1,000	1,000

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10-237	☑	March 1982
10-238	☐	
10-250	☐	
10-451	☐	

11. REFERENCES AND CONTACTS:

Johnson, Donald L., Department of Georgraphy, University of Illinois, Urbana, Illinois 61801

12. DATE OF PROJECT STATEMENT SUBMISSION: March 1982

CULTURAL AND NATURAL RESOURCES PROJECT STATEMENT

1. PARK AND REGION: Channel Islands National Park, Western Region

2. PROJECT NAME AND NUMBER: Exotic Plant Eradication Feasibility (CHIS N-6).

3. STATEMENT OF PROBLEM: A management goal for natural areas in the National Park System is to eliminate all exotic biota, when feasible. The RMP identifies several species of exotic plants which, by virtue of small numbers or restricted island range, will be relatively easy to eliminate. Others, such as various annual grasses, or the crystalline iceplant (Mesembryanthemum crystallinum), will be much more difficult, and may prove impossible, to eliminate. It is these plants, however, which provide greatest competition with native species, and it is their widespread presence which most alters the aura of the islands. But without further work to indicate the actual extent of their influence on the islands, and an inquiry made as to the possible detrimental effects of eradication, it cannot be unequivocally stated that total removal of all the exotic plants would be in the best interest of the islands' ecosystems. Moreover, experimentation must be made of the various types of eradication methods available.

4. WHAT HAS BEEN DONE: The Natural Resources Study by the Santa Barbara Museum of Natural History (1979) studied vegetation on the islands, including updating of plant lists, the historic fluctuations in plant communities, the formulation of community maps, and the establishment of transects to monitor changes in these communities. General suggestions to minimize the impacts of exotic vegetation were included as part of the study.

5. DESCRIPTION OF WORK TO BE UNDERTAKEN: Existing information will be gathered regarding exotic plant eradication experiments and techniques, as well as specific life history studies of those plants identified as target species. Field studies will be undertaken to ascertain the true extent of these exotics' influence on native plants, animals, and on the relationship between these biological, chemical, and manual controls, will be tested on sample plots, and results will be discussed, with respect to effectiveness, cost, ease, and detrimental and/or positive resulting conditions. A report discussing all the above items will be prepared, and will include alternative levels of control if total elimination proves unfeasible.

6. LENGTH OF TIME NEEDED: Three years.

7. WHAT WILL HAPPEN IF NOT UNDERTAKEN: Management will not know what methods of exotic plant eradication are most effective or least destructive, or even how important from an ecological viewpoint it is to remove the plants. Management will not have at its disposal a discussion of various alternatives, other than total elimination or doing nothing.

8. WHAT ARE THE ALTERNATIVES: a. No action. b. Attempt to actively manage the islands' vegetation without the information which would result from the study.

9. PERSONNEL: Contract research personnel, aided by monument personnel.

10. ADMINISTRATION AND LOGISTICS:

Funding	Year in Program Sequence 1st	2nd	3rd	4th	5th
Personal Services	13,500	13,500	13,500	____	____
Other than Personal Services	8,000	8,000	8,000	____	____
GRAND TOTAL	21,500	21,500	21,500		
Funds Available in Park Base	0	0	0		
Funds Requested from Regional Office	21,500	21,500	21,500	____	____

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10-237	☐	_____
10-238	☐	_____
10-250	☐	_____
10-451	☐	_____

11. REFERENCES AND CONTACTS:

Hochberg, M., S. Junak, Dr. R. Philbrick, and Dr. S. Timbrook. 1979. Botany. Pages 5.1-5.85, in Dr. Power, ed., Natural Resources Study, Channel Islands National Monument, California. National Park Service, Denver Service Center Contract No. CX-2000-8-0040.

Vivette, Dr. N., Department of Botany, University of California, Berkeley, CA.

12. DATE OF PROJECT STATEMENT SUBMISSION: March 1982

1.1 Channel Islands National Park - RM-19 - Monitor wind and gully erosion

1.2 Statement of Issue or Problem

A combination of domestic animal overgrazing, farming cultivation, and fire has resulted in significant levels of soil erosion on all of the islands within historic times. Such erosional activity has had impact on such aspects of the park as vegetational destruction, disturbance of archeological sites and loss of artifacts, and trail damage and sloughing of cliffs, a potential danger to both personnel and visitors. Because of the large amount of erosion occurring on the islands and the need to prioritize projects to curb such activity, the Santa Barbara Museum of Natural History, as part of its contract study on natural resources of the park in 1978, was requested to identify those areas in which erosion was occurring naturally as opposed to those which were man-caused. This question proved impractical to answer but rebar was placed at several gully nickpoints in those areas of highest erosional activity on Anacapa, San Miguel, and Santa Barbara Islands in order to be able to monitor changes in erosional patterns and to ascertain erosional rates. A program for the cyclic reading of these monitoring stations will be initiated to gather such data on the basis of each island being read every third year.

1.3 Alternative Actions and Their Probable Impacts

1. No Action - If the rebar stations are not read, and the information concerning the erosional processes on the islands not gathered, a waste of funding, opportunity, and time will result. Future decisions concerning areas of erosion and erosional processes will be made with inadequate information, or in some cases, none at all.

2. Monitor Only Some of the Existing Rebar Sites - The sites were chosen in areas which were identified as important or troublesome from the point of view of management concerns. Not only would the reading of all the sites be most valuable, but since the cost would be no greater once the personnel were on the particular island, reading only a partial number of sites would be wasteful from many points of view.

1.4 Recommended Course of Action

The rebar points on the islands (10 sites on Anacapa, 22 sites on San Miguel, and eight sites on Santa Barbara) will be monitored, one island per year on a recurring basis every third year. Changes in erosion patterns and rates will be noted by measuring distances between rebar and new gully nickpoints, and rate of headwall erosion calculated. From these data, decisions can be made regarding need to directly address erosional activity with a maintenance project.

CULTURAL AND NATURAL RESOURCES PROJECT STATEMENT

1. PARK AND REGION: Channel Islands National Park, Western Region

2. PROJECT NAME AND NUMBER: Visitation and Human Disturbance to Pinniped and Seabird Activities (CHIS RM-13)

3. STATEMENT OF THE PROBLEM: Disturbance to pinnipeds and breeding seabirds on monument islands results from both island based and offshore visitor activities. Because the islands have extensive coastlines and the National Park Service has a limited staff, disturbance cannot always be prevented. At the present time, no documentation exists that quantifies the frequency and end result of various degrees of disturbance caused by monument visitors and staff activities. This information is essential to devise plans for mitigation or elimination of disturbance. With the knowledge of disturbance thresholds, recommendations to other agencies can be made, if necessary, to lower the incidence of disturbance to pinnipeds and seabirds.

4. WHAT HAS BEEN DONE: A video-tape monitoring program to study the effects of sonic booms to pinniped populations was initiated at Point Bennett, San Miguel Island, by the U. S. Air Force, Space Shuttle Program in 1978. Because of the low incidence of visitation to this island, further study in an area characterized by frequent human use needs to be undertaken. No other quantifiable disturbance studies have been implemented or are proposed.

5. DESCRIPTION OF WORK TO BE UNDERTAKEN: Activity patterns and disturbance to pinnipeds and seabirds will be monitored by video-tape sampling stations on Anacapa Island during the months of heaviest visitation and breeding and nesting periods. Periodic on-site observations will be made to supplement recorded data. Tapes will be analyzed to document and classify the type and intensity of disturbance and to assess the long term implications of those activities. Based on the data collected, recommendations for distances between visitors, staff and pinnipeds and seabirds will be made for appropriate areas and activities.

6. LENGTH OF TIME NEEDED: Six months

7. WHAT WILL HAPPEN IF NOT UNDERTAKEN: Management will continue to lack hard data on which to base recommendations for visitor use and to provide to the State for establishment of regulations within Ecological Reserves. Management will continue to be unaware that disturbance is occurring in some locales. Locally marginal breeding populations may become extirpated.

8. WHAT ARE THE ALTERNATIVES: a. No action. b. Combine this study with other natural resource pinniped studies.

9. PERSONNEL: Contracted research technicians and equipment. Park Rangers to assist and to provide logistical support.

10. ADMINISTRATION AND LOGISTICS:

	1st
Personal Services	13,000
Other than Personal Services	7,000
Grand Total	20,000
Funds Available in Park Base	3,800
Funds Requested from Regional Office	16,200

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10-237	☐	_____
10-238	☐	_____
10-250	☐	_____
10-451	☐	_____

11. REFERENCES AND CONTACTS:

Mr. George Antonelis, NMFS, National Marine Mammal Lab, Seattle, WA
Dr. Joseph Jehl, Hubbs Sea World Research Institute
Mr. Brent Stewart, Hubbs Sea World Research Institute

12. DATE OF PROJECT STATEMENT SUBMISSION: March 1982

NATURAL RESOURCES PROJECT STATEMENT

1. PARK AND REGION: Channel Islands National Park, Western Region

2. PROJECT NAME AND NUMBER: Park Water Resource Management Plan (W-3; incorporates W-1 and W-2).

3. STATEMENT OF PROBLEM: In compliance with Public Law 92-500 (Federal Water Pollution Control Act) and as amended by Public Law 95-217 (Clean Water Act of 1977) and as furthered by the Service Memorandum of Understanding with Environmental Protection Agency (EPA), each area must develop a Park Water Plan.

4. WHAT HAS BEEN DONE: No comprehensive water quality management plan has been developed for the area, though adequate information concerning the three islands over which the National Park Service has management authority is included in the 1980 Channel Islands National park Resource Management Plan.

5. DESCRIPTION OF WORK TO BE UNDERTAKEN:

   a. An historical report on management of water resources in the entire park.

   b. Classification of all surface waters by present and proposed uses.

   c. An analysis of the present status of park waters, including:

      (1) Identification of water quality required to support specified uses and, where appropriate, to comply with or assist in establishing state water quality standards.

      (2) Relationship of water quality to any threatened, known, rare or endangered species indigenous to the park and the relationship of water quality to the protection of all natural resources.

      (3) A bibliography of available information concerning the existing quality of park waters.

   d. A description of proposed actions relating to management of park waters.

   e. A detailed plan for monitoring the quality of park waters that will reveal existing water quality and significant trends.

   Future coordination/cooperation with EPA and the state is required to ascertain established water standards.

6. LENGTH OF TIME NEEDED: Three years

7. WHAT WILL HAPPEN IF PROJECT NOT UNDERTAKEN: Service noncompliance with the above federal laws; lack of knowledge upon which to base future development alternatives.

8. WHAT ARE THE ALTERNATIVES: None

9. PERSONNEL: Regional assistance with contracted U.S. Geological Survey to develop/initiate basic aspects. After which, future monitoring will be done by area staff.

10. ADMINISTRATION AND LOGISITICS:

Funding	Year in Program Sequence 1st	2nd	3rd	4th	5th
Personal Services			2000		
Other than personal services					
Grand Total			2000		
Funds available in park base			2000		
Funds requested from Regional Office			----		

On Form Date Submitted

11. REFERENCES AND CONTACTS:

Dr. D.L. Johnson, University of Illinois

12. DATE OF SUBMISSION: March 1982

CULTURAL RESOURCES MANAGEMENT PLAN

Overview and Needs

Revision - March 1982

Two primary aspects of the current cultural resources management program are: 1) Continuing survey of cultural resources in the park; and 2) Decision about stabilization of cultural sites, possible stabilization of some sites, salvaging of others. The hoped for timetable of these projects follows:

Fiscal Year 1982 - Initiate C-5 (Fornulate Research Design for Archeological Sites Affected by Erosion). Continue C-4 (Continue Archaeological Survey of San Miguel Island).

Fiscal Year 1983 - Initiate C-2 (Locate Historical/Archaeological Sites), C-3 (Decision on Nidever Adobe).

Fiscal Year 1984 - Initiate C-6 (Record and Map Paleontological Sites), C-7 (Further Evaluate Lester Ranch).

If the status of access to the privately owned park islands changes, additional projects will be needed. As practicality allows, certain identified projects will be combined.

CULTURAL RESOURCES PROJECT PROGRAMMING SHEET

Channel Islands National Park, California

Revision March 1982

Area Priority Number	Reference Number	Increase or Package Number	Project Title	Year 1 (1982) NPS MY	Year 1 (1982) COSTS/$1000 BASE	Year 1 (1982) COSTS/$1000 NEW	Year 2 (1983) NPS MY	Year 2 (1983) COSTS/$1000 BASE	Year 2 (1983) COSTS/$1000 NEW	Year 3 (1984) NPS MY	Year 3 (1984) COSTS/$1000 BASE	Year 3 (1984) COSTS/$1000 NEW	Year 4 (1985) NPS MY	Year 4 (1985) COSTS/$1000 BASE	Year 4 (1985) COSTS/$1000 NEW	Year 5 (1986) NPS MY	Year 5 (1986) COSTS/$1000 BASE	Year 5 (1986) COSTS/$1000 NEW
1	C-5	Pkg. # 222	Formulate Research Design for Archeological Sites Affected by Erosion			19												
2	C-2		Locate Historical/Archeological Sites			40			32									
3	C-4		Continue Archaeological Survey of San Miguel Island			32			28			28						
4	C-3		Decision on Nidever Adobe						40									
5	C-6		Record and Map Paleontological Sites				Project Statement Not Yet Written											
6	C-1		Prepare Historical Structure Maintenance Guide for Anacapa Historical District				Project Statement Not Yet Written											
7	C-7		Further Evaluate Lester Ranch				Project Statement Not Yet Written											

CULTURAL AND NATURAL RESOURCES PROJECT STATEMENT

1. PARK AND REGION: Channel Islands National Park, Western Region

2. PROJECT NAME AND NUMBER: Formulate Research Design for Archeological Sites Affected by Erosion (CHIS C-5)

3. STATEMENT OF PROBLEM: Erosion of historic and prehistoric archeological resources as well as unauthorized excavation in the past has altered appearance, internal depositional structure, artifact associations, and integrity for scientific data gathering at many park sites. Paleotological localities containing evidence of mammoth and possibly human activities are also undergoing erosion and may be highly significant in research potential. Density of habitation and other sites on the park islands exceeds many other California areas and affords close comparisons within park islands and other Channel Islands. A few sites are in proximity to park visitor and management operations. Evaluation of what data may be gathered from surface appearance of sites has been accomplished but little information exists on site cross-sections, rate of effect from sources of erosion, methods to increase site preservation and decrease severity of erosion, and comparisons of site characteristics in terms of research approachs between islands' site groups.

4. WHAT HAS BEEN DONE: Projects have resulted in preparation of reports detailing past excavation work (Roaire 1978), revisiting site locations for upgrading information (Greenwood 1978, 1982), testing application of remote sensing methods for site recognition (Glassow 1982), summaries of existing data for Santa Rosa and Santa Cruz Islands (Glassow 1982), and an Archeological Overview study (Glassow 197-). These projects have resulted in reliable and professionally sound data base desciptions of site appearance and location and past excavations.

   In Fiscal Year 1982, a project on San Miguel Island will include establishment of an erosion monitoring system at seven sites, experiments in site deposit stabilization at four sites, and recording of vertical profiles at seven sites. Results of this project will be available in late 1982. A five year monitoring program should give objective information on effects of natural processes upon archeological resources located on the windward side of San Miguel Island. Stabilization experiments will give information regarding protection of deposits with sandbag walls and use of ground cover mats in encouragement of vegetation growth.

5. DESCRIPTION OF WORK TO BE UNDERTAKEN:

   Using available archeological reports and site information, a research design document for known resources within the park will be prepared stressing the following: 1) preservation and study of paleotogical localities, 2) preservation methods and prestabilization work needed to emplace additional corrective measures and monitoring systems, 3) approachs to cross-site comparisons in terms of stratigraphic formation, deposit contents, seriation of artifact assemblages as may be recovered,

and chronological age, 4) research questions and test implications to be answered through excavations, surveys, and intensive data gathering techniques. This research design shall utilize current statistical concepts, interdisciplinary specialists, ethnographic information, and applicable theoretical strategies and will result in a report in publishable form.

6. LENGTH OF TIME NEEDED: One year from funding date to production of final document.

7. WHAT WILL HAPPEN IF NOT UNDERTAKEN: Any further archeological project - terrain survey, emergency excavation or data collection, archeological clearance, examination, interpretation of accidental finds, and Native American interests - will not have guidelines fulfilling NPS-28 (Cultural Resource Management Guidelines), Chapter 5 and will be disconnected actions. Repetition, potential waste of funds, overlap, and misuse of manpower may result. The Service would be open to critism from professional community for not having sound guidelines for actions dealing with preservation, research, mitigation of effect, and legal compliance regarding archeological resources. Loss of data of unknown significance will occur at unknown rates.

8. WHAT ARE THE ALTERNATIVES: a. No action. b. Study only paleotological resources. c. Study only prehistoric midden sites. d. Study only historical archeological resource sites. c. Design excavation projects only. d. Formulate all stabilization, research, and preservation actions from results of FY 82 project on San Miguel Island.

9. PERSONNEL: Professional archeological personnel, in house or contracted. Western Archeological/Conservation Center and Regional Office staff to be contract reviewers or contracting officer's representative.

10. ADMINISTRATION AND LOGISTICS:

Personnel Services: $15,000
Other than Personnel Services: $4000 (island travel, duplication of report)
Total: $19,000

On Form: Date Submitted:

11. REFERENCES AND CONTACTS:

Regional Archeologist R. Kelly, WRO
Greenwood and Associates, Pacific Palisades
Michael Glassow, UCSB
Santa Barbara Natural History Museum: Travis Hudson and others
Santa Barbara Indian Center
Los Angeles County Natural History Museum: Chas. Rozaire

CULTURAL AND NATURAL RESOURCES PROJECT STATEMENT

1. PARK AND REGION: Channel Islands National Park, Western Region

2. PROJECT NAME AND NUMBER: Historical-Archaeological Site Survey of Channel Islands National Monument (CHIS C-2).

3. STATEMENT OF PROBLEM: Though both an archaeological and a historical survey of the monument islands has been accomplished, no thorough on-ground surveys have been made of either historical or historical-archaeological sites on the monument islands. There is knowledge that such sites are present, but since very little actual information is known, these sites and their attendant resources are being lost through susceptibility to vandalism, weathering, and misguided management practices.

4. WHAT HAS BEEN DONE: In September 1978, an archaeological survey (by Greenwood) of known sites on Anacapa, San Miguel, and Santa Barbara Islands was completed; though its purpose was to address the archaeological potential of the islands, as well as to check known sites, several historical-archaeological areas were peripherally noted. In May 1979, a historical resource study (by Roberts) of the monument was completed; while it told the historical story of the monument, this study was not designed to study sites. Much of what is known regarding the occurrence and location of sites if found in the "Channel Islands Photographic Survey" (by Morgan); this project encompassed primarily historical sites of all the Channel Islands, and the combination of current and historical photographs, background information and, in many cases, historic site diagrams, makes this a particularly valuable reference source. Still, none of these reports offers a complete and scientifically accurate description of even the majority of the sites in the monument.

5. DESCRIPTION OF WORK TO BE UNDERTAKEN: Based upon literature search and upon personal interviews, develop a list of potential historical sites and tentative locations. Perform surveys of these sites, completing site forms for each. Collects objects in immediate danger of loss, and other items of special significance upon consultation with monument and regional NPS personnel. Develop a final report in which will be included site forms, historical background of each site, and recommendations for each site's management.

6. LENGTH OF TIME NEEDED: Two years.

7. WHAT WILL HAPPEN IF NOT UNDERTAKEN: Information on these cultural resources will be incomplete, if available at all, and in no case in a form useful to management. Without such information, management will not know the extent of a valuable and non-renewable resource, and unable to provide for its protection.

8. WHAT ARE THE ALTERNATIVES: a. No action. b. Rely on existing information as a basis for management decisions.

9. PERSONNEL: Contract scientists.

10. ADMINISTRATION AND LOGISTICS:

Funding	Year in Program Sequence 1st	2nd	3rd	4th	5th
Personal Services	30,000	25,000			
Other than Personal Services	10,000	7,000	____	____	____
GRAND TOTAL	40,000	32,000			
Funds Available in Park Base	0	0			
Funds Requested from Regional Office	40,000	32,000			

On Form		Date Submitted
10-237	☐	_____
10-238	☐	_____
10-250	☐	_____
10-451	☐	_____

11. REFERENCES AND CONTACTS:

Greenwood, Robert S. 1978. Archeological Survey and Investigation, Channel Islands National Monument, California, National Park Service, Denver Service Center Contract No. CX-2000-7-0063

Morgan, Ronnie P. 1979. Channel Islands Photographic Survey, Santa Barbara (CA) Museum of Natural History.

Roberts, Lois W. 1979. Historic Resource Study, Channel Islands National Monument and San Miguel Island, California, National Park Service, Denver Service Center Contract No. CX-2000-7-0065.

12. DATE OF PROJECT STATEMENT SUBMISSION:

March 1982

CULTURAL AND NATURAL RESOURCES PROJECT STATEMENT

1. PARK AND REGION: Channel Islands National Park, Western Region

2. PROJECT NAME AND NUMBER: Nidever Adobe Site Testing (CHIS C-3)

3. STATEMENT OF PROBLEM: The ruins of the adobe building built by George Nidever in the 1850s on San Miguel Island have been identified as a major resource in the San Miguel Island Archaeological District within the National Register of Historic Places. The Nidever Adobe is currently in imminent danger of total loss as a result of stream erosion, and decisions must be made regarding its future. Its importance indicates that stabilization should be attempted if this is both feasible and practical. If not, archaeological salvage, as well as recording by measured drawings and photographic survey should be undertaken.

4. WHAT HAS BEEN DONE: In September 1978, an archaeological survey (by Greenwood) of Anacapa, San Miguel, and Santa Barbara Islands was completed; though its purpose was to address the archaeological resources of the islands, the Nidever Adobe site was examined as well. Recommendation from this survey was that the site should be stabilized. In May 1979, a historical resource study (by Roberts) of the three islands was completed, with a recommendation that the adobe be preserved; this resulted in a nomination of the site to the National Register ofHistoric Places, though this was ultimately included in a broader nomination for the entire island.

5. DESCRIPTION OF WORK TO BE UNDERTAKEN: Survey of the Nidever Adobe site should be undertaken to address the potential of stabilization, from the viewpoints of possibility of success, environmental impact on the surrounding area, and cost effectiveness. Decision will be made in consulation with NPS cultural resource managers, regarding whether to stabilize this ruin. If so, plans will be developed to effect this protective action. If not, plans will be developed for archaeological salvage, recording, and monitoring. In both cases, the work will be implemented.

6. LENGTH OF TIME NEEDED: One year

7. WHAT WILL HAPPEN IF NOT UNDERTAKEN: Lack of sufficient information will preclude making an informed decision regarding advisability of stabilization. Without development of plans leading to either stabilization or salvage, a valuable cultural resource will be lost.

8. WHAT ARE THE ALTERNATIVES: a. No action. b. Proceed with survey without implementation of either salvage or stabilization. c. Decide to either stabilize or salvage ruin without sufficient consideration,

9. PERSONNEL: Professional archaeologist, crew.

10. ADMINISTRATION AND LOGISTICS:

Funding	Year in Program Sequence				
	1st	2nd	3rd	4th	5th
Personal Services	-	20,000	-	-	-
Other Than Personnal Services	-	20,000	-	-	-
GRAND TOTAL		$40,000			
Funds Available in Park Base		0			
Funds Requested from Regional Office		$40,000			

On Form	Date Submitted
10-237	_____
10-238	_____
10-250	_____
10-451	_____

11. REFERENCES AND CONTACTS:

Greenwood, Roberta S. 1978. Archaeological Survey and Investigation, Channel Islands National Monument, California, National Park Service, Denver Service Center Contract No. CX-2000-7-0063

Morgan, Ronnie P. 1979. Channel Islands Photographic Survey, Santa Barbara Museum of Natural History, California

Roberts, Lois W. 1979. Historic Resource Study, Channel Islands National Monument and San Miguel Island, California, National Park Service, Denver Service Center Contract No. CX-2000-7-0065.

12. DATE OF PROJECT STATEMENT SUBMISSION:

March 1982

CULTURAL AND NATURAL RESOURCES PROJECT STATEMENT

1. PARK AND REGION: Channel Islands National Park, Western Region

2. PROJECT NAME AND NUMBER: San Miguel Island Archaeological Site Survey (CHIS C-4).

3. STATEMENT OF PROBLEM: Of 548 archaeological sites known from San Miguel, only 159 were examined as a part of Roberta Greenwood's Archaeological Survey of the monument (1978). Her work yielded clarification of site records, additions of new records, much more complete and useful mapping of locations, and, as well, discovered and warned of several management problems (such as human remains eroding from some sites) needing active solution. Not revisited are still 388 known sites, and for this majority of the sites on the island no up-to-date information is known.

4. WHAT HAS BEEN DONE: Preliminary archeological site surveys on San Miguel Island were undertaken by Charles Rozaire in 1958, continuing through the early 1970s. As part of her NPS contract, Greenwood was asked to revisit 28 percent of Rozaire's sites, totalling 155 of the 543 known at that time. Greenwood found 154 of these sites, and identified five new ones, filling out site records on them all. Her report indicated that several sites which she examined had eroding human remains, and she formulated management recommendations addressing these and other problems. Her report composed the basis upon which the CHIS General Management Plan and Resource Management Plan were formulated regarding archeological resources.

5. DESCRIPTION OF WORK TO BE UNDERTAKEN: Using the same methods described by Greenwood (1978), remaining areas on San Miguel Island will be examined, site records updated, maps and numbering systems reconciled, and selected artifacts collected by means of a random sample method. New sites discovered will be recorded and mapped. A resulting report will include management recommendations and will prioritize sites for which future actions are necessary. All the above work will be undertaken in consultation with Native American representation.

6. LENGTH OF TIME NEEDED: Three years.

7. WHAT WILL HAPPEN IF NOT UNDERTAKEN: Current status of all known archeological sites in the monument will not be available to management, nor will the possibility of discovering new sites be available. Potential future management actions will be undertaken without complete knowledge of this non-renewable resource. As well, management will be unaware of site conditions for which corrective action should be taken.

8. WHAT ARE THE ALTERNATIVES: a. No Action. b. Fund a less than complete survey of the remaining sites.

9. PERSONNEL: Professional archeologist and field party.

10. ADMINISTRATION AND LOGISTICS:

Funding	Year in Program Sequence 1st	2nd	3rd	4th	5th
Personal Services	20,000	20,000	20,000		
Other than Personal Services	12,000	8,000	8,000		
GRAND TOTAL	32,000	28,000	28,000		
Funds Available in Park Base	0	0	0		
Funds Requested from Regional Office	32,000	28,000	28,000		

On Form		Date Submitted
10-237	☐	
10-238	☐	
10-250	☐	
10-451	☐	

11. REFERENCES AND CONTACTS:

Greenwood, Roberta S. 1978. Archeological Survey and Investigation, Channel Islands National Monument, California, National Park Service, Denver Service Center Contract No. CX-2000-7-0063.

Kelly, Roger, Regional Archeologist, National Park Service, Western Regional Office, 450 Golden Gate Avenue, San Francisco, CA.

Rozaire, Charles E. 1978. A Report on the Archeological Investigations of Three California Islands: Santa Barbara, Anacapa, and San Miguel. National Park Service, Western Regional Office Purchase Order No. PX-8000-60916.

12. DATE OF PROJECT STATEMENT SUBMISSION:

March 1982